

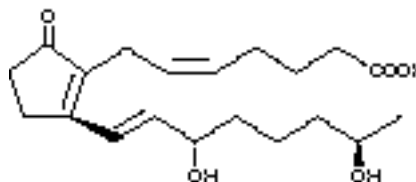
Product Information



19(R)-hydroxy Prostaglandin B₂

Item No. 11910

Formal Name: 9-oxo-15S,19R-dihydroxy-prosta-5Z,8(12),13E-trien-1-oic acid
Synonym: 19(R)-OH PGB₂
MF: C₂₀H₃₀O₅
FW: 350.5
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in ethanol
UV/Vis.: λ_{max}: 278 nm



Laboratory Procedures

For long term storage, we suggest that 19(R)-hydroxy Prostaglandin B₂ (19(R)-OH PGB₂) be stored as supplied at -20°C. It should be stable for at least one year.

19(R)-OH PGB₂ is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO or dimethyl formamide purged with an inert gas can be used. The solubility of 19(R)-OH PGB₂ in these solvents is approximately 50 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 19(R)-OH PGB₂ can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 19(R)-OH PGB₂ in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Base treatment of human seminal plasma extracts converts the 19-OH PGE compounds present into the corresponding PGB compounds generating strong conjugated dienone chromophores. This method has been employed in part to provide a rapid, UV-based analytical method for PGE quantitation. Due to its chemical stability and strong UV absorbance at 278 nm, 19(R)-OH PGB₂ is also used as an internal standard in extractions and HPLC to determine recovery of arachidonic acid metabolites.¹⁻³

References

1. Antoine, C., Murphy, R.C., Henson, P.M., *et al.* Time-dependent utilization of platelet arachidonic acid by the neutrophil in formation of 5-lipoxygenase products in platelet-neutrophil co-incubations. *Biochim. Biophys. Acta* **1128**, 139-146 (1992).
2. Borgeat, P. and Picard, S. 19-Hydroxyprostaglandin B₂ as an internal standard for on-line extraction-high-performance liquid chromatography analysis of lipoxygenase products. *Anal. Biochem.* **171**, 283-289 (1988).
3. Surette, M.E., Odeimat, A., Palmantier, R., *et al.* Reverse-phase high-performance liquid chromatography analysis of arachidonic acid metabolites in plasma after stimulation of whole blood *ex vivo*. *Anal. Biochem.* **216**, 392-400 (1994).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/11910

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

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